

*Admin File*

**New York State Department of Environmental Conservation**

**Division of Environmental Permits, 4<sup>th</sup> Floor**

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Joe Martens  
Commissioner

June 9, 2014

Mr. Tom Rhoades, P.E.  
Commissioner  
Onondaga Co. Dept of Water Environment Protection  
650 Hiawatha Blvd West  
Syracuse, NY 13204-1194

**Re:** Oak Orchard WWTP  
DEC#7-3124-00018/00001 SPDES#: NY0030317

Dear Mr. Rhoades:

Enclosed is a final renewed State Pollutant Discharge Elimination System (SPDES) permit for the above referenced facility. Comments on the draft permit were received from you and Ms. Michelle Josilo, NPDES Section Chief, USEPA, Region 2. All comments are addressed in the enclosed responsiveness summary.

Be advised, the Uniform Procedures Regulations (6NYCRR Part 621) provide that an applicant may request a public hearing if a permit contains conditions which are unacceptable to them. Any such request must be made in writing within 30 calendar days of the date of permit issuance and must be addressed to the Chief Permit Administrator at the letterhead address. A copy should also be sent to the Chief Administrative Law Judge at NYSDEC, 625 Broadway, 1st Floor, Albany, NY 12233-1550.

Should you have questions on the administration of this modification and renewal, please feel free to contact me at the address or phone number listed above. Should you have technical questions on permit content, please contact the permit engineer, John Weidman, at (518) 402-8197, or the Regional Water Engineer, Joseph Zalewski, at (315) 426-7500.

Sincerely,

Teresa Diehsner  
Division of Environmental Permits

**Enclosure**

c: D. Bimber, RPA  
J. Zalewski, RWE  
J. Weidman, Permit Engineer  
C. Jamison, CO-BWP Permit Coordinator  
M. Josilo, EPA Reg 2  
N. Myers, NYSEFC  
M. Child, IJC  
NYSDOH District Office

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ONONDAGA COUNTY

2014 JUN 12 PM 2:30

DEPARTMENT OF  
WATER ENVIRONMENT  
PROTECTION

**Responsiveness Summary**  
**Oak Orchard WWTP**  
**DEC ID 7-3124-00018/00001 NY0030317**  
**Prepared By: John Weidman, Bureau of Water Permits**  
**December 2013**

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**Background:** The above referenced draft SPDES permit was developed after a full technical review was completed and a tentative determination was made to renew the permit. The draft permit was public noticed on 9/18/2013 in the Environmental Notice Bulletin and on 9/17/2013 in The Syracuse Post Standard. The public comment period ended on 10/18/13. Comments dated 10/17/2013 were received from Tom Rhoads, Commissioner, Onondaga County Department of Water Environment Protection (County). Comments dated 10/28/13 were received from Sieglinde Pylypchuk, Clean Water Regulatory Branch, US Environmental Protection Agency (USEPA), Region 2. All comments are addressed below. A revised drafted permit has been provided to USEPA.

**Comments received on October 17, 2013 from Tom Rhoads, Onondaga County Department of Water Environment Protection**

**Comment 1 – General Comments:** On August 1, 2013, the permittee submitted a "Plan for Future Growth" for this facility because the design loading for BOD5 was exceeded for any eight (8) months of the calendar year. The County requested that DEC consider re-rating the facility based on contemporary performance and applicable/permitted design. Since we have not received a response to this request, we are insisting that the permit renewal process be postponed until this important issue is addressed.

**Response:** No changes to the draft permit would result from the "Plan for Future Growth" document.

**Comment 2:** Although not added to the Oak Orchard permit, there appears to be some inconsistency with the application of monitoring requirements for Enterococci bacterial monitoring (included on Meadowbrook Limestone, but excluded on Oak Orchard and Baldwinsville). Is there a NYSDEC basis for the application of Enterococci bacterial monitoring?

**Response:** The permittee does not discharge to coastal recreation waters so it appears that 131.41 is not applicable and no E. coli or Enterococci monitoring is warranted at this time.

**Comment 3 - Page 4 of 21:** Flow Monitoring - Flow measurement is listed as "influent". Please be advised that the Department has historically measured/reported flow at the secondary clarifier effluent as measured by a Parshall flume.

**Response:** The monitoring location for flow has been identified as "influent" in the permit since at least 1977 and has been carried over in the draft permit. However, since the actual monitoring location is at the secondary clarifier effluent as measured by a Parshall flume the monitoring location in the permit will be changed to "effluent."

**Comment 4 - Page 4 of 21 and 5 of 21:** Nitrogen, Ammonia Total - Previous permit specified Ammonia (as NH3), please clarify that the NYSDEC would like NH3-N reported.

**Response:** The permit has been clarified to show Ammonia (as NH<sub>3</sub>) as is listed on the fact sheet and in the current permit. Also, based on comments received from the USEPA Region 2 the Ammonia (as NH<sub>3</sub>) limit has been re-calculated for both the winter and summer period. The revised limits are listed in the permit, fact sheet and as follows: The summer Ammonia (as NH<sub>3</sub>) limit has been changed to 307 lb/day. The winter Ammonia (as NH<sub>3</sub>) limit is 2,026 lb/day. The sample type of this water quality based effluent limit has been changed to monthly average from daily maximum. The dissolved oxygen limit of 5.0 mg/l (minimum) has also been recalculated and as a result will be changed to 2.0 mg/l (minimum).

**Comment 5 - Page 4 of 21, Page 5 of 21, and Fact Sheet Page 12 of 13:** Disinfection period in the permit (June 15 to October 31) is not consistent with the disinfection period identified in the fact sheet (May 15 to Oct 15). Please clarify the appropriate disinfection period.

**Response:** The permit has been corrected and is now consistent with the current permit.

**Comment 6 - Page 5 of 21 and 16 of 21:** TRC Limit and Schedule of Compliance: Five out of six County permits are currently under renewal, each requiring a disinfection upgrade. In order to accomplish the regulatory and water quality goals successfully, the County needs to budget, fund and initiate projects consistent with County protocols. Some of these required upgrades are currently in the design phase, while others have not even been budgeted. In example, the effective date of the TRC final permit limit (EDP + 1 year) is wholly inadequate for the design, funding, and construction for a permit limit that by necessity will result in ultraviolet disinfection. The County categorically rejects any compliance schedule until the NYSDEC and the County can finalize a mutually agreed upon disinfection compliance schedule for all five treatment plants.

In light of these findings, provided to DEC as an aspect of the phosphorus TMDL development process, it is incumbent on DEC to exercise maximum regulatory flexibility in crafting permit requirements such as compliance schedules and imposing permit conditions that reflect true water quality needs and not purely mathematical constructs that yield little water quality impacts but could prove socially and economically burdensome.

Moreover, it is our understanding that the DEC is conducting its federally-mandated "triennial review" of the State's water quality standards and is looking to revise pathogen indicators for recreational waters to reflect the new EPA criteria. In light of this pending review and possible revision to DEC's long standing water quality regulations, it would appear to be appropriate for DEC to suspend currently mandated and/or proposed permit changes for all Onondaga County facilities that would result in upgrades and/or new construction of disinfection facilities pending adoption, if any, of revised water quality criteria for pathogens and assessment of impacts of revised disinfection requirements.

**Response:** As requested, the Department has extended the effective date of the final TRC limit to allow for the design, funding and construction as may be necessary to meet the final TRC limit for each of the County facilities. In addition, the Water Quality standard for Total Residual Chlorine resulted is a calculated limit of 45 ppb (0.045 mg/l). The Water Quality standard for Total Residual Chlorine will not change as a result of any revised pathogen indicators. Therefore, no changes to the permit are necessary with the

exception of a revised schedule to allow the County adequate time for the design, funding and construction necessary to meet the new permit limit.

**Comment 7 - Page 6 of 21:** Footnote 3 should be deleted since, as written, this footnote is not utilized for any parameter listed in this permit.

**Response:** The footnotes have been corrected.

**Comment 8 - Page 6 of 21:** Total Iron, Footnote 6: Delete footnote specifying the 24 hr. composite be collected as 3 grab samples at 8 hr. intervals. This parameter can be collected from a standard 24 hour composite sample.

**Response:** Permit changed as requested.

**Comment 9 - Page 6 of 21:** Action Levels - the Arsenic and Phenol collection method should be listed as 24 hr. composite and reference footnote (6) for specific details regarding grab sample intervals which make up the composite samples. Alternatively, provide a sampling footnote for grab sample(s) associated with an 8 hour composite as currently written.

**Response:** The footnotes have been corrected.

**Comment 10 - Page 6 of 12:** Action Level Limits - The Department is very concerned about the drastic lowering of the Action Levels and reviewed the recent performance (2010-2013) in comparison to the proposed action level values in draft permit (see table below). Based on historical data, we should not necessarily exceed any action levels with the new limits, however, they do not leave any room for inherent analytical or flow rate variability. Based on the DEC's analysis included in the fact sheet, the existing action levels are sufficiently protective of the water quality. The County rejects any arbitrary reductions in the Action Levels.

**Response:** After further review and discussion with the County the Department will retain current action levels. In addition, since there is no water quality standard or guidance value for Iron for discharge to a Class B receiving water the Action Level for Iron has been replaced with a monitor only requirement. The fact sheet has been updated accordingly.

**Comment 11 - Page 7 or 21 - WET Testing:** If WET testing shall consist of Chronic only testing, why are Acute action levels listed? These should be deleted and listed as monitor only.

**Response:** The 7-day chronic testing also generates reportable 48-hr acute data. Class C waters and above are technically required to meet both the applicable acute and chronic criteria at the edge of the respective mixing zones. By running a "chronic only" test but also reporting the acute results, separate acute and chronic tests are not necessary. Therefore, both acute and chronic WET action levels are required in the permit. There are no "monitor only" WET requirements per TOGS 1.3.2 and numerical values (i.e. either action levels or limits) must always be included.

**Comment 12 - Page 12 of 21:** Storm Water Pollution Prevention Plan for POTW's with Storm Water Outfalls - The permit does not list the due date for the initial completed SWPPP; typically listed as within 12 months of EDP.

**Response:** The SWPPP requirements have been updated. The initial completed SWPPP must be submitted by EDP + 6 months to the Regional Water Engineer. The SWPPP must be implemented within 6 months of submission, unless a different time frame is approved by the Department.

**Comments on Fact Sheet:**

**Comment 13 - Page 1 of 13, Section 1.3:** TRC limit of 0.22 mg/l is inconsistent with the permit (0.35 mg/l).

**Response:** The fact sheet has been corrected.

**Comment 14 - Page 2 of 13: Section B, Outfall 001:** Please fix typographical errors in 4<sup>th</sup> paragraph, replace "were" with "where" (2 times).

**Response:** The fact sheet has been corrected.

**Comment 15 - Page 3 of 13: 1<sup>st</sup> Paragraph:** References six (6) pump stations owned by the Town of Salina. This should be the Town of Clay, not Salina.

**Response:** The fact sheet has been updated as requested.

**Comment 16 -** The Oak Orchard WWTP Service Area has a total of twenty one (21) outlying pumping stations, which collect and transport wastewater to the treatment plant. Nine (9) of these pumping stations are owned by Onondaga County, six (6) are owned by the town of Cicero and six (6) are owned by the town of Salina. It should be noted that all of the pumping stations are maintained by OCDWEP personnel.

**Response:** No changes to fact sheet.

**Comment 17 - Page 4 of 13: Section C - Discharge Composition:** It is unclear how TOGS 1.2.1, which is guidance for industrial permitting, was applied to the development of the Action Levels since many were established at the maximum value in the data set and significantly more restrictive than the current permit. Please provide additional information in the computation of the proposed action levels.

**Response:** TOGS 1.2.1 outlines the process for developing Action Levels, which applies to municipal and industrial facilities. In this case, as discussed above, action levels from previous permit have been retained.

**Comment 18 - Page 6 of 13: TRC:** "Based on TOGS 1.3.3, a daily maximum limit of 2.0 mg/l is appropriate". This is inconsistent with the Permit and remainder of the fact sheet. Consider deleting entire description, and add the same note as Mercury; "See WQBEL section below".

**Response:** TOGS 1.3.3 requires a minimum technology based effluent limit of 2.0 mg/l unless the calculated water quality based effluent limit is lower. A note has been added to refer to the WQBEL section for additional information.

**Comment 19 - Page 7 of 13, Mercury:** There is an incorrect reference to the "maximum value of 0.68 ng/l which exceeds the water quality standard of 0.7 ng/l". The value 0.68 ng/l does not exceed 0.7 ng/l.

**Response:** Fact sheet has been corrected.

**Comment 20 - Page 12 of 13:** There is apparent confusion on the appropriate disinfection season for this facility. The Fact Sheet lists May 15 - October 15, the draft permit lists June 15 - October 31.

**Response:** Fact sheet has been clarified.

**Comment 21 - Page 13 of 13:** The County is unaware that the NYDEC has promulgated the water quality standard for iron. The AWQC should not be listed for this parameter, nor should any calculations or determinations be made using this value as a driver.

**Response:** Fact sheet has been clarified.

**Comment 22 - Page 13 of 13:** In the table for Existing Effluent Quality, it is believed to be incorrect to report the Maximum value at something less than the 99th percentile. Several parameters seem to be in error.

**Response:** The 99<sup>th</sup> percentile is correct but does not change any permit limits or monitoring requirements in the draft permit.

**Comments received on October 28, 2013 from Sieglinde Pylypchuk, Clean Water Regulatory Branch, US Environmental Protection Agency (USEPA), Region 2.**

**Comment – Ammonia:** The draft Oak Orchard WWTP establishes an effluent limitation for total ammonia from June 1 to October 31 but requires only monitoring from November 1 to May 31. The water quality standard for ammonia, established at 6 NYCRR Part 703.5, is based on the temperature and pH of the receiving water. As the temperature decreases, the water quality standard becomes more stringent. It is unclear why a water-quality based effluent limitation for total ammonia has been established in the summer months but not in the winter months, when the water-quality standard is more stringent and the effluent is more likely to have the reasonable potential to cause or contribute to an exceedance of the water quality standard. Please conduct a reasonable potential analysis for total ammonia in the summer and winter months and, if necessary, establish appropriate seasonal effluent limitations.

Additionally, the effluent limitation for total ammonia from June 1 to October 1 is mass-based. As discussed in the "concentration-based effluent limitations" comment below, please establish a concentration-based effluent limitation for total ammonia.

**Response:** The Ammonia (as NH<sub>3</sub>) limit has been re-calculated for both winter and summer. The revised limits are listed in the permit and as follows: The summer Ammonia (as NH<sub>3</sub>) limit has been changed to 307 lb/day. The winter Ammonia (as NH<sub>3</sub>) limit is 2,026 lb/day. The sample type of this water quality based effluent limit has been changed to monthly average from daily maximum. The dissolved oxygen limit of 5.0 mg/l (minimum) has also been recalculated and as a result will be changed to 2.0 mg/l (minimum). The fact sheet has been updated accordingly.

**Comment - Concentration-based Effluent Limitations:** The draft Oak Orchard WWTP permit establishes mass-based action levels for cadmium, chromium, copper, nickel, and zinc but does not establish concentration-based action levels for these parameters. The draft permit also establishes a mass-based effluent limitation for total ammonia but does not establish a concentration-based effluent limitation. 40 CFR 122.45(f)(ii) states that mass-based limits are required except when applicable standards are expressed in terms of another unit of measure. As the standards for these parameters in the NYSWQS at 6 NYCRR Part 700 are concentration-based, please ensure that concentration-based action levels for cadmium, chromium, copper, nickel and zinc and concentration-based effluent limitations for total ammonia are established in the Oak Orchard WWTP permit.

**Response:** In this case the applicable regulations do not require concentration-based limits. EPA's recommendation to add such limits has been reviewed. Considering the available effluent dilution the Department believes that mass-based limits are sufficient to protect water quality and that concentration-based limits are not necessary.

**Comment - Dissolved Oxygen:** The draft Oak Orchard WWTP permit establishes an effluent limitation for dissolved oxygen from June 1 to October 31 but does not establish an effluent limitation during the rest of the year. The water-quality standard for dissolved oxygen, as established in 6 NYCRR Part 703.3, is not a seasonal standard. If the effluent from the Oak Orchard WWTP permit has the reasonable potential to cause or contribute to a violation of the dissolved oxygen standard, a year-round effluent limitation must be established in the permit.

**Response:** The fact sheet and permit have been revised to indicate that a worst case dissolved oxygen level of 2.0 mg/l was used to calculate permit limits. Therefore, the permit has been revised and a minimum dissolved oxygen limit of 2.0 mg/l has been added which will ensure that the discharge meets New York State Water Quality Standards as all times.

**Comment - Mercury:** TOGS 1.3.10 provides that the Multiple Discharger Variance (MDV) is in effect for "five years from the effective date specified on page 1 of this document". Page 1 indicates that the issue date (assuming this is the same as the effective date as well) is October 2012, therefore the MDV is in effect until September 2015. As the term of the draft modified Oak Orchard WWTP permit extends beyond the expiration date of the MDV, the permit must reflect a final water quality-based effluent limit of 0.7 ng/l as of September 2015 unless other relief is provided in the permit (e.g., compliance schedule, renewal of the MDV).

**Response:** NYSDEC's interpretation of the applicable regulations (40 CFR Part 132, Appendix F, Procedure 2 and 6 NYCRR Part 702.17) and policy (DOW 1.3.10, Section 4.2.1.11) is that the MDV may be applied from October 2010 thru September 2015 and that the "variance" actually happens when an individual permit is changed to include these requirements, i.e., if the MDV is applied to a permit prior to October 2015 then the resulting requirements may be in effect for the permit term which extends past October 2015. NYSDEC's interpretation is consistent with practices in other States.

**Comment - Pathogen Criteria Implementation:** The Oak Orchard WWTP discharges to class B waters. As specified in NYSWQS at 6 NYCRR Part 701.8, the best usage of class B fresh water is primary and secondary contact recreation and fishing. Class B waters must also be suitable for fish, shellfish, and wildlife propagation and survival. The draft Oak Orchard WWTP

permit establishes effluent limitations for fecal coliforms but does not establish effluent limitations for total coliforms. The NYSWQS at 6 NYCRR Part 703.4 establish water quality criteria for fecal coliforms and total coliforms discharging into class B waters. As stated in the NYSWQS (6 NYCRR Part 701.1), the discharge of sewage, industrial waste, or other wastes shall not cause impairment of the best usages of the receiving water. In order to comply with the NYSWQS and ensure that the best usage of the receiving water are not impaired, please conduct a reasonable potential analysis for total coliforms and, if necessary, establish total coliforms limitations in the Oak Orchard WWTP permit.

**Response:** The proposed fecal coliform limits are consistent with DEC's existing disinfection policy in TOGS 1.3.3. Parallel monitoring for total coliform is not typically required.

**Comment – Pretreatment Program Implementation Requirements:** Section B(4)c of the Pretreatment Program Implementation Requirements should refer to 40 CFR 403.8(f)(2)(viii), not 403.8(f)(2)(vii).

**Response:** Permit changed as requested.

**Comment – Water Treatment Chemicals:** Page 9 of the fact sheet for the draft Oak Orchard WWTP permit states that the permittee must provide an annual report to NYSDEC detailing the use of water treatment chemicals. However, no corresponding requirement is established in the draft permit. Please establish a requirement for the permittee to submit an annual water treatment chemical report in the Schedule of Submittals on page 17 of the draft permit.

**Response:** The General Conditions page of the permit has been changed to establish an annual reporting requirement in the permit.

**Comment – Whole Effluent Toxicity:** The fact sheet for the draft Oak Orchard WWTP permit states that a reasonable potential analysis has been performed for WET. However, there is no WET data is provided in the Pollutant Summary Table. With no data, it is not clear not the permit meets the requirements of 40 CFR 122.44(d)(i) or 40 CFR part 132 which specify that if the WET of an effluent is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any numeric WET criterion, an effluent limitation for WET must be established in the permit. Please provide an RPA of existing WET data or a justification for not establishing effluent limitations for WET.

**Response:** The Division has reviewed EPA's comment regarding the WET testing requirements in the draft permit. As part of the permit development process, the SPDES permit application and the facility's submitted data were evaluated using the most recent edition of Division of Water Technical and Operational Guidance Series (1.3.2), ACUTE AND CHRONIC TOXICITY TESTING IN THE SPDES PERMIT PROGRAM. This guidance document, which was reviewed and accepted by EPA, describes the procedures which should be followed when determining whether to include WET testing in a SPDES permit. This facility is new to the WET program; therefore no WET data exists to be able to perform a reasonable potential determination (RPD) to determine the need for WET Limits. As a result, we believe in accordance with TOGS 1.3.2, the facility has received the appropriate WET program requirements with this initial WET Action Levels. Once four quarterly WET tests are completed, the RPD will be completed to determine if the WET Action Levels should be upgraded to enforceable WET Limits.





NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**State Pollutant Discharge Elimination System (SPDES)**  
**DISCHARGE PERMIT**

Industrial Code: 4952  
Discharge Class (CL): 05  
Toxic Class (TX): N  
Major Drainage Basin: 07  
Sub Drainage Basin: 03  
Water Index Number: ONT-66-11  
Compact Area: IJC

SPDES Number: NY-0030317  
DEC Number: 7-3124-00018/00001  
Effective Date (EDP): 07/01/2014  
Expiration Date (ExDP): 06/30/2019  
Modification Dates: (EDPM)

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et seq.) (hereinafter referred to as "the Act").

**PERMITTEE NAME AND ADDRESS**

Name: Onondaga County  
Street: 650 Hiawatha Blvd. West  
City: Syracuse

Attention: Commissioner, WEP

State: NY Zip Code: 13204-1194

is authorized to discharge from the facility described below:

**FACILITY NAME AND ADDRESS**

Name: Oak Orchard Wastewater Treatment Plant

Location (C,T,V): Clay (T)

County: Onondaga

Facility Address: 4300 Oak Orchard Road

City: Clay

State: NY Zip Code: 13212

NYTM -E:

NYTM -N:

From Outfall No.: 001 at Latitude: 43 ° 12 ' 18.6 " & Longitude: 76 ° 12 ' 49.7 "

into receiving waters known as: Oneida River

Class: B

and; (list other Outfalls, Receiving Waters & Water Classifications)

See stormwater outfalls list, page 2 of permit.

in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

**DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS**

Mailing Name: Onondaga County Department of Water Environment Protection

Street: 650 Hiawatha Blvd

City: Syracuse

State: NY Zip Code: 13204-1194

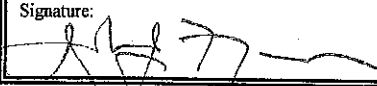
Responsible Official or Agent: Head Operator

Phone: (315) 652-5097

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

**DISTRIBUTION:**

CO BWP - Permit Coordinator  
RWE  
RPA  
EPA Region II - Michelle Josilo  
NYSEFC  
NYSDOH District Office  
IJC

Chief Permit Administrator: John J. Ferguson	
Address: Division of Environmental Permits 625 Broadway Albany, NY 12233-1750	
Signature: 	Date: 6/8/14

**STORMWATER OUTFALLS**

The following outfalls discharge on-site stormwater only, from roofs and catch basins:

<u>Outfall</u>	<u>Description</u>	<u>Latitude/Longitude</u>	<u>Receiving Water</u>
002	Stormwater runoff only from catch basin, roof drains, grass covered swales.	43° 12' 12.9" N 76° 12' 42" W	Mud Creek to Oneida River
003	Stormwater runoff only from catch basin and paved roadway areas.	43° 12' 00" N 76° 12' 30.9" W	Drainage area of Oneida River
004	Stormwater runoff only from catch basins, roof drains, grassed areas and paved areas.	43° 11' 53.3" N 76° 12' 40.8" W	Mud Creek to Oneida River

**PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS**

OUTFALL	WASTEWATER TYPE		RECEIVING WATER	EFFECTIVE	EXPIRING	
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.		This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)	
PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE	
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.			
PARA-METER	EFFLUENT LIMIT	PRACTICAL QUANTITATION LIMIT (ML)	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based standards, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the analytical method specified in the permit shall be used to monitor the amount of the pollutant in the outfall to this level, provided that the laboratory analyst has complied with the specified quality assurance/quality control procedures in the relevant method. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This ML can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, that trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, Temperature, concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

**Note 1: DAILY DISCHARGE:** The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants expressed in units of mass, the 'daily discharge' is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the 'daily discharge' is calculated as the average measurement of the pollutant over the day. **DAILY MAX:** The highest allowable daily discharge. **DAILY MIN:** The lowest allowable daily discharge. **MONTHLY AVG (daily avg):** The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. **RANGE:** The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown. **7 DAY ARITHMETIC MEAN (7 day average):** The highest allowable average of daily discharges over a calendar week. **12 MRA (twelve month rolling avg):** The average of the most recent twelve month's monthly averages. **30 DAY GEOMETRIC MEAN (30 d geo mean):** The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of : the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. **7 DAY GEOMETRIC MEAN (7 d geo mean):** The highest allowable geometric mean of daily discharges over a calendar week.

**Note 2: ACTION LEVELS:** Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards. The additional monitoring requirement is triggered upon receipt by the permittee of any monitoring results in excess of the stated Action Level.

# PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	June 16 to October 31	Oneida River	07/01/2014	06/30/2019

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly average	10.0	mgd	-	-	Continuous	Recorder		X	
CBOD <sub>5</sub>	Monthly average	25	mg/l	2085	lbs/d	2/week	24-hr. Comp.	X	X	(1)
CBOD <sub>5</sub>	7 day average	40	mg/l	3336	lbs/d	2/week	24-hr. Comp.	X	X	
BOD <sub>5</sub>	Monthly average	Monitor	mg/l	Monitor	lbs/d	1/month	24-hr. Comp.	X		
UOD	Daily maximum	Monitor	mg/l	4289	lbs/d	2/week	24-hr. Comp.	X	X	(2)
Solids, Suspended	Monthly average	30	mg/l	2500	lbs/d	2/week	24-hr. Comp.	X	X	(1)
Solids, Suspended	7 day average	45	mg/l	3750	lbs/d	2/week	24-hr. Comp.	X	X	
Solids, Settleable	Daily maximum	0.3	ml/l	-	-	3/day	Grab	X	X	
pH	Range	6.0 to 9.0	SU	-	-	3/day	Grab	X	X	
Temperature	Daily maximum	Monitor	Deg C	-	-	3/day	Grab	X	X	
Dissolved Oxygen	Daily Minimum	2.0	mg/l	-	-	2/week	Grab		X	
Nitrogen, Ammonia Total (as NH <sub>3</sub> )	Monthly average	Monitor	mg/l	307	lbs/d	2/week	24-hr. Comp.		X	
Nitrogen, TKN (as N)	Daily maximum	Monitor	mg/l	-	-	2/week	24-hr. Comp.		X	
Phosphorus, Total (as P)	Monthly average	1.0	mg/l	-	-	2/week	24-hr. Comp.		X	
Mercury, Total	Daily maximum	50	ng/l	-	-	Quarterly	Grab		X	(4)
Effluent Disinfection required: [ ] All Year [ X ] Seasonal from <u>May 15</u> to <u>October 15</u>										
Coliform, Fecal	30 day geometric mean	200	No./100 ml	-	-	2/week	Grab.		X	
Coliform, Fecal	7 day geometric mean	400	No./100 ml	-	-	2/week	Grab.		X	
Chlorine, Total Residual (Interim – effective EDP to 11/1/2018)	Daily maximum	0.35	mg/l	-	-	3/day	Grab		X	(5)
Chlorine, Total Residual (Final – becomes effective 11/1/2018)	Daily maximum	0.045	mg/l	-	-	3/day	Grab		X	(5)

FOOTNOTES: See page 6

## PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL No.	LIMITATIONS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	November 1 to June 15	Oneida River	07/01/2014	06/30/2019

PARAMETER	EFFLUENT LIMIT					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly average	10.0	mgd	-	-	Continuous	Recorder		X	
CBOD <sub>5</sub>	Monthly average	25	mg/l	2085	lbs/d	2/week	24-hr. Comp.	X	X	(1)
CBOD <sub>5</sub>	7 day average	40	mg/l	3336	lbs/d	2/week	24-hr. Comp.	X	X	
BOD <sub>5</sub>	Monthly average	Monitor	mg/l	Monitor	lbs/d	1/month	24-hr. Comp.	X		
UOD	Daily maximum	-	mg/l	-	lbs/d	2/week	24-hr. Comp.	X	X	(2)
Solids, Suspended	Monthly average	30	mg/l	2500	lbs/d	2/week	24-hr. Comp.	X	X	(1)
Solids, Suspended	7 day average	45	mg/l	3750	lbs/d	2/week	24-hr. Comp.	X	X	
Solids, Settleable	Daily maximum	0.3	ml/l	-	-	3/day	Grab	X	X	
pH	Range	6.0 to 9.0	SU	-	-	3/day	Grab	X	X	
Temperature	Daily maximum	Monitor	Deg. C	-	-	3/day	Grab	X	X	
Dissolved Oxygen	Daily Minimum	2.0	mg/l	-	-	2/week	Grab		X	
Nitrogen, Ammonia Total (as NH <sub>3</sub> )	Monthly average	Monitor	mg/l	2,026	lbs/d	2/week	24-hr. Comp.		X	
Nitrogen, TKN (as N)	Daily maximum	Monitor	mg/l	-	-	2/week	24-hr. Comp.		X	
Phosphorus, Total (as P)	Monthly average	1.0	mg/l	-	-	2/week	24-hr. Comp.		X	
Mercury, Total	Daily maximum	50	ng/l	-	-	Quarterly	Grab		X	(4)
Effluent Disinfection required: [ ] All Year [ X ] Seasonal from <u>May 15</u> to <u>October 15</u>										
Coliform, Fecal	30 day geometric mean	200	No./100 ml	-	-	2/week	Grab.		X	
Coliform, Fecal	7 day geometric mean	400	No./100 ml	-	-	2/week	Grab.		X	
Chlorine, Total Residual (Interim – effective EDP to 11/1/2018)	Daily maximum	0.35	mg/l	-	-	3/day	Grab		X	5
Chlorine, Total Residual (Final – becomes effective 11/1/2018)	Daily maximum	0.045	mg/l	-	-	3/day	Grab		X	5

FOOTNOTES: See page 6

**PERMIT LIMITS, ACTION LEVELS AND MONITORING**

OUTFALL No.	LEVELS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted	Oneida River	07/01/2014	06/30/2019

PARAMETER	EFFLUENT LIMIT		MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max					
Iron, Total Recoverable			Monitor	lbs/day	1/quarter	24 hr. Comp.	
Chloroform			1.3	lbs/day	1/quarter	24 hr. Comp.	(3)
Cadmium, Total Recoverable			0.4	lbs/day	1/quarter	24 hr. Comp.	
Chromium, Total Recoverable			1.9	lbs/day	1/quarter	24 hr. Comp.	
Copper, Total Recoverable			1.8	lbs/day	1/quarter	24 hr. Comp.	
Nickel, Total Recoverable			2.9	lbs/day	1/quarter	24 hr. Comp.	
Zinc, Total Recoverable			5.4	lbs/day	1/quarter	24 hr. Comp.	
Arsenic, Total Recoverable			Monitor	lbs/day	1/quarter	24 hr. Comp.	
Phenols, Total			Monitor	lbs/day	1/quarter	24 hr. Comp.	(3)

**FOOTNOTES:**

- (1) Effluent shall not exceed 15 % and 15 % of influent concentration values for CBOD<sub>5</sub> & TSS respectively.
- (2) Ultimate Oxygen Demand shall be computed as follows:  $UOD = 1.5 \times CBOD_5 + 4.5 \times TKN$  (Total Kjeldahl Nitrogen).
- (3) The 24-hr. composites shall be collected as 3 grab samples at 8 hr. intervals. Three grab samples shall be collected and combined in laboratory prior to analysis.
- (4) EPA Method 1631 is required for Mercury sampling.
- (5) Monitoring of these parameters is only required during the period when disinfection is required.

**WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS**

OUTFALL No.	LEVELS APPLY:	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted	Oneida River	07/01/2014	06/30/2019

PARAMETER	EFFLUENT LIMIT		PQL	MONITORING ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg.	Daily Max.	Daily Max.					
WET - Acute Invertebrate				1.5	TUa	Quarterly	see footnote	1
WET - Acute Vertebrate				1.5	TUa	Quarterly	see footnote	1
WET - Chronic Invertebrate				9.0	TUc	Quarterly	see footnote	1
WET - Chronic Vertebrate				9.0	TUc	Quarterly	see footnote	1

**Footnotes:****1. Whole Effluent Toxicity (WET) Testing:**

**Testing Requirements** - WET testing shall consist of Chronic only testing. WET testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be *Ceriodaphnia dubia* (water flea - invertebrate) and *Pimephales promelas* (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. The appropriate dilution series bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) is 5:1 for acute, and 9:1 for chronic. Discharges which are disinfected using chlorine should be dechlorinated prior to WET testing or samples shall be taken immediately prior to the chlorination system.

**Monitoring Period** - WET testing shall be performed at the specified sample frequency for the duration of the permit during calendar years ending in 1 and 6 beginning in January and lasting for a period of one full year.

**Reporting** - Toxicity Units shall be calculated and reported on the DMR as follows:  $TUa = (100)/(48 \text{ hr LC50})$  or  $(100)/(48 \text{ hr EC50})$  (note that Acute data is generated by both Acute and Chronic testing) and  $TUc = (100)/(NOEC)$  when Chronic testing has been performed or  $TUc = (TUa) \times (10)$  when only Acute testing has been performed and is used to predict Chronic test results, where the 48 hr LC50 or 48 hr EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TUc. Report a TUa of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

The complete test report including all corresponding results, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period to the Toxicity Testing Unit. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48 hr LC50 or 48 hr EC50 for Acute tests and/or TUc, NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

**WET Testing Action Level Exceedances** - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is necessary, the permittee shall be notified in writing by the Regional Water Engineer. The written notification shall include the reason(s) why such testing or a TRE is required.

## PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS

- A. **DEFINITIONS.** Generally, terms used in this Section shall be defined as in the General Pretreatment Regulations (40 CFR Part 403). Specifically, the following definitions apply to terms used in this Section (PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS):
1. **Categorical Industrial User (CIU)** - an industrial user of the POTW that is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;
  2. **Local Limits** - General Prohibitions, specific prohibitions and specific limits as set forth in 40 CFR 403.5.
  3. **The Publicly Owned Treatment Works (the POTW)** - as defined by 40 CFR 403.3(q) and that discharges in accordance with this permit.
  4. **Program Submission(s)** - requests for approval or modification of the POTW Pretreatment Program submitted in accordance with 40 CFR 403.11 or 403.18 and approved by letter dated June 11, 1984.
  5. **Significant Industrial User (SIU)** -
    - a. CIUs;
    - b. Except as provided in 40 CFR 403.3(v)(3), any other industrial user that discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater) to the POTW;
    - c. Except as provided in 40 CFR 403.3(v)(3), any other industrial user that contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
    - d. Any other industrial user that the permittee designates as having a reasonable potential for adversely affecting the POTW's operation or for violating a pretreatment standard or requirement.
  6. **Substances of Concern** - Substances identified by the New York State Department of Environmental Conservation Industrial Chemical Survey as substances of concern.
- B. **IMPLEMENTATION.** The permittee shall implement a POTW Pretreatment Program in accordance 40 CFR Part 403 and as set forth in the permittee's approved Program Submission(s). Modifications to this program shall be made in accordance with 40 CFR 403.18. Specific program requirements are as follows:
1. **Industrial Survey.** To maintain an updated inventory of industrial dischargers to the POTW the permittee shall:
    - a. Identify, locate and list all industrial users who might be subject to the industrial pretreatment program from the pretreatment program submission and any other necessary, appropriate and available sources. This identification and location list will be updated, at a minimum, every five years. As part of this update the permittee shall collect a current and complete New York State Industrial Chemical Survey form (or equivalent) from each SIU.
    - b. Identify the character and volume of pollutants contributed to the POTW by each industrial user identified in B.1.a above that is classified as a SIU.
    - c. Identify, locate and list, from the pretreatment program submission and any other necessary, appropriate and available sources, all significant industrial users of the POTW.
  2. **Control Mechanisms.** To provide adequate notice to and control of industrial users of the POTW the permittee shall:
    - a. Inform by certified letter, hand delivery courier, overnight mail, or other means which will provide written acknowledgment of delivery, all industrial users identified in B.1.a. above of applicable pretreatment standards and requirements including the requirement to comply with the local sewer use law, regulation or



## PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

ordinance and any applicable requirements under section 204(b) and 405 of the Federal Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

- b. Control through permit or similar means the contribution to the POTW by each SIU to ensure compliance with applicable pretreatment standards and requirements. Permits shall contain limitations, sampling frequency and type, reporting and self-monitoring requirements as described below, requirements that limitations and conditions be complied with by established deadlines, an expiration date not later than five years from the date of permit issuance, a statement of applicable civil and criminal penalties and the requirement to comply with Local Limits and any other requirements in accordance with 40 CFR 403.8(f)(1).
3. Monitoring and Inspection. To provide adequate, ongoing characterization of non-domestic users of the POTW, the permittee shall:
  - a. Receive and analyze self-monitoring reports and other notices. The permittee shall require all SIUs to submit self-monitoring reports at least every six months unless the permittee collects all such information required for the report, including flow data.
  - b. The permittee shall adequately inspect each SIU at a minimum frequency of once per year.
  - c. The permittee shall collect and analyze samples from each SIU for all priority pollutants that can reasonably be expected to be detectable at levels greater than the levels found in domestic sewage at a minimum frequency of once per year.
  - d. Require, through permits, each SIU to collect at least one 24 hour, flow proportioned composite (where feasible) effluent sample every six months and analyze each of those samples for all priority pollutants that can reasonably be expected to be detectable in that discharge at levels greater than the levels found in domestic sewage. The permittee may perform the aforementioned monitoring in lieu of the SIU except that the permittee must also perform the compliance monitoring described in 3.c.
4. Enforcement. To assure adequate, equitable enforcement of the industrial pretreatment program the permittee shall:
  - a. Investigate instances of noncompliance with pretreatment standards and requirements, as indicated in self-monitoring reports and notices or indicated by analysis, inspection and surveillance activities. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions. Enforcement activities shall be conducted in accordance with the permittee's Enforcement Response Plan developed and approved in accordance with 40 CFR Part 403.
  - b. Enforce compliance with all national pretreatment standards and requirements in 40 CFR Parts 406 - 471.
  - c. Provide public notification of significant non-compliance as required by 40 CFR 403.8(f)(2)(viii).
  - d. Pursuant to 40 CFR 403.5(e), when either the Department or the USEPA determines any source contributes pollutants to the POTW in violation of Pretreatment Standards or Requirements the Department or the USEPA shall notify the permittee. Failure by the permittee to commence an appropriate investigation and subsequent enforcement action within 30 days of this notification may result in appropriate enforcement action against the source and permittee.
5. Record keeping. The permittee shall maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by SIUs. Records shall be maintained in accordance with 6 NYCRR Part 750-2.5(c).
6. Staffing. The permittee shall maintain minimum staffing positions committed to implementation of the Industrial Pretreatment Program in accordance with the approved pretreatment program.

## PRETREATMENT PROGRAM IMPLEMENTATION REQUIREMENTS (continued)

- C. SLUDGE DISPOSAL PLAN. The permittee shall notify NYSDEC, and USEPA as long as USEPA remains the approval authority, 60 days prior to any major proposed change in the sludge disposal plan. NYSDEC may require additional pretreatment measures or controls to prevent or abate an interference incident relating to sludge use or disposal.
- D. REPORTING. The permittee shall provide to the offices listed on the Monitoring, Reporting and Recording page of this permit and to the Chief-Water Compliance Branch; USEPA Region II; 290 Broadway; New York, NY 10007; a periodic report that briefly describes the permittee's program activities over the previous year. This report shall be submitted to the above noted offices within 60 days of the end of the reporting period. The reporting period shall be ANNUAL with reporting period(s) ending on December 31.

The periodic report shall include:

1. Industrial Survey. Updated industrial survey information in accordance with 40 CFR 403.12(i)(1) (including any NYS Industrial Chemical Survey forms updated during the reporting period).
2. Implementation Status. Status of Program Implementation, to include:
  - a. Any interference, upset or permit violations experienced at the POTW directly attributable to industrial users.
  - b. Listing of significant industrial users issued permits.
  - c. Listing of significant industrial users inspected and/or monitored during the previous reporting period and summary of results.
  - d. Listing of significant industrial users notified of promulgated pretreatment standards or applicable local standards who are on compliance schedules. The listing should include for each facility the final date of compliance.
  - e. Summary of POTW monitoring results not already submitted on Discharge Monitoring Reports and toxic loadings from SIU's organized by parameter.
  - f. A summary of additions or deletions to the list of SIUs, with a brief explanation for each deletion.
3. Enforcement Status. Status of enforcement activities to include:
  - a. Listing of significant industrial users in Significant Non-Compliance (as defined by 40 CFR 403.8(f)(2)(viii)) with federal or local pretreatment standards at end of the reporting period.
  - b. Summary of enforcement activities taken against non-complying significant industrial users. The permittee shall provide a copy of the public notice of significant violators as specified in 40 CFR Part 403.8(f)(2)(viii).

**MERCURY MINIMIZATION PROGRAM – High Priority POTWs**

1. **General** - The permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP). The MMP is required because the 50 ng/L permit limit exceeds the statewide water quality based effluent limit (WQBEL) of 0.70 nanograms/liter (ng/L) for Total Mercury. The goal of the MMP will be to reduce mercury effluent levels in pursuit of the WQBEL. Note – The mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10*.

2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings or maps. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. As a minimum, the MMP shall include an on-going program consisting of: periodic monitoring designed to quantify and, over time, track the reduction of mercury; an acceptable control strategy for reducing mercury discharges via cost-effective measures, which may include more stringent control of tributary waste streams; and submission of periodic status reports.

A. **Monitoring** - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the reduction of mercury. All permit-related wastewater and stormwater mercury compliance point (outfall) monitoring shall be performed using EPA Method 1631. Use of EPA Method 1669 during sample collection is recommended. Unless otherwise specified, all samples shall be grabs. Monitoring at influent and other locations tributary to compliance points may be performed using either EPA Methods 1631 or 245.7. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring shall be coordinated so that the results can be effectively compared between internal locations and final outfalls. Minimum required monitoring is as follows:

- i. **Sewage Treatment Plant Influent & Effluent, and Type II SSO Outfalls** - Samples at each of these locations must be collected in accordance with the minimum frequency specified on the mercury permit limits page.
- ii. **Key Locations in the Collection System and Potential Significant Mercury Sources** - The minimum monitoring frequency at these locations shall be semi-annual. Monitoring of properly treated dental facility discharges is not required.
- iii. **Hauled Wastes** - Hauled wastes which may contain significant mercury levels must be periodically tested prior to acceptance to ensure compliance with pretreatment/local limits requirements and/or determine mercury load.
- iv. Additional monitoring must be completed as may be required elsewhere in this permit or upon Department request.

B. **Control Strategy** - An acceptable control strategy is required for reducing mercury discharges via cost-effective measures, including but not limited to more stringent control of industrial users and hauled wastes. The control strategy will become enforceable under this permit and shall contain the following minimum elements:

- i. **Pretreatment/Local Limits** - The permittee shall evaluate and revise current requirements in pursuit of the goal.
- ii. **Periodic Inspection** - The permittee shall inspect users as necessary to support the MMP. Each dental facility shall be inspected at least once every five years to verify compliance with the wastewater treatment operation, maintenance, and notification elements of 6NYCRR Part 374.4. Other mercury sources shall also be inspected once every five years. Alternatively, the permittee may develop an outreach program which informs these users of their responsibilities once every five years and is supported by a subset of site inspections. Monitoring shall be performed as above.
- iii. **Systems with CSO & Type II SSO Outfalls** - Priority shall be given to controlling mercury sources upstream of CSOs and Type II SSOs through mercury reduction activities and/or controlled-release discharge. Effective control is necessary to avoid the need for the Department to establish mercury permit limits at these outfalls.
- iv. **Equipment and Materials** - Equipment and materials which may contain mercury shall be evaluated by the permittee and replaced with mercury-free alternatives where environmentally preferable.

C. **Annual Status Report** - An annual status report shall be submitted to the Regional Water Engineer and to the Bureau of Water Permits summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) all action undertaken pursuant to the strategy during the previous year; (d) actions planned for the upcoming year; and, (e) progress toward the goal. The first annual status report is due one year after the permit is modified to include the MMP requirement and follow-up status reports are due annually thereafter. A file shall be maintained containing all MMP documentation, including the dental forms required by 6NYCRR Part 374.4, which shall be available for review by NYSDEC representatives. Copies shall be provided upon request.

3. **MMP Modification** - The MMP shall be modified whenever: (a) changes at the facility or within the collection system increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the Department identifies inadequacies in the MMP; or, (d) pursuant to a permit modification.

## STORM WATER POLLUTION PREVENTION PLAN FOR POTWs WITH STORMWATER OUTFALLS

1. **General** - The Department has determined that stormwater discharges from POTWs with design flows at or above 1 mgd shall be covered under the SPDES permit. If the permittee has already submitted a Notice of Intent to the Department for coverage under the General Storm Water permit, the permittee shall submit a Notice of Termination to the Department upon receipt of this final SPDES permit containing the requirement to develop a SWPPP.

The permittee is required to develop, maintain, and implement a Storm Water Pollutant Prevention Plan (SWPPP) to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and other stormwater discharges including, but not limited to, drainage from raw material storage.

The SWPPP shall be documented in narrative form and shall include the 13 minimum elements below and plot plans, drawings, or maps necessary to clearly delineate the direction of stormwater flow and identify the conveyance, such as ditch, swale, storm sewer or sheet flow, and receiving water body. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the SWPPP and may be incorporated by reference. A copy of the current SWPPP shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.

2. **Compliance Deadlines** - The initial completed SWPPP shall be submitted by EDP + 6 months to the Regional Water Engineer. The SWPPP shall be implemented within 6 months of submission, unless a different time frame is approved by the Department. The SWPPP shall be reviewed annually and shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the SWPPP is inadequate, or (c) a letter from the Department identifies inadequacies in the SWPPP. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All SWPPP revisions (with the exception of minimum elements - see item (4.B.) below) must be submitted to the Regional Water Engineer within 30 days. Note that the permittee is not required to obtain Department approval of the SWPPP (or of any minimum elements) unless notified otherwise. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.

3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all substances present at the facility that are identified in Tables 6-10 of SPDES application Form NY-2C (available at <http://www.dec.state.ny.us/website/dcs/permits/olpermits/form2c.pdf>) as well as those that are required to be monitored by the SPDES permit.

4. **A. 13 Minimum elements** - Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify Best Management Practices (BMPs) that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of minimum elements of the SWPPP and BMPs is available in the September 1992 manual *Storm Water Management for Industrial Activities*, EPA 832-R-92-006 (available on-line at <http://nepis.epa.gov/pubtitleOW.htm>). At a minimum, the plan shall include the following elements:

- |                                     |  |                                 |
|-------------------------------------|--|---------------------------------|
| 1. Pollution Prevention Team        | 6. Security  | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents       | 7. Preventive Maintenance                                | 11. Erosion & Sediment Control  |
| 3. Risk Identification & Assessment | 8. Good Housekeeping                                     | 12. Management of Runoff        |
| 4. Employee Training                | 9. Materials/Waste Handling,<br>Storage, & Compatibility | 13. Street Sweeping             |
| 5. Inspections and Records          |  |                                 |

STORM WATER POLLUTION PREVENTION PLAN FOR POTWs WITH STORMWATER OUTFALLS  
(continued)

Note that for some facilities, especially those with few employees, some of the above may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the SWPPP that do not apply to your facility, along with an explanation, for instance if street sweeping did not apply because no streets exist at the facility.

B. Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters - As part of the erosion and sediment control element, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 of SPDES application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters.

The SWPPP shall conform to the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*, unless a variance has been obtained from the Regional Water Engineer, and to any local requirements. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity at least 30 days prior to soil disturbance. The SWPPP shall also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at [www.dec.state.ny.us/website/dow/toolbox/swforms.html](http://www.dec.state.ny.us/website/dow/toolbox/swforms.html)) prior to soil disturbance. Note that submission of a NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges, nor are any additional permit fees incurred. SWPPPs must be developed and submitted for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP is properly implemented.

**DISCHARGE NOTIFICATION REQUIREMENTS**

- (a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty four inches (18" x 24") and shall have white letters on a green background and contain the following information:

**N.Y.S. PERMITTED DISCHARGE POINT**

SPDES PERMIT No.: NY \_\_\_\_\_

OUTFALL No. : \_\_\_\_\_

For information about this permitted discharge contact:

Permittee Name: \_\_\_\_\_

Permittee Contact: \_\_\_\_\_

Permittee Phone: (     ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: (     ) - ### - ####

- (e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained on record for a period of five years.
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

**DISCHARGE NOTIFICATION REQUIREMENTS (continued)**

- (g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:
- (i) such sign would be inconsistent with any other state or federal statute;
  - (ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;
  - (iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;
  - (iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or
  - (v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.
- (h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, Central Office, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

**SCHEDULE OF COMPLIANCE**

a) The permittee shall comply with the following schedule:

Outfall(s)	Parameter(s) Affected	Interim Effluent Limit(s)	Compliance Action	Due Date
001	Chlorine, Total Residual	0.35 mg/l	Interim Permit Limit	Effective 07/01/2014 to 11/1/2018
001	Chlorine, Total Residual	-	Permittee must provide plans to the Department for achieving final permit limit	04/01/2015
001	Chlorine, Total Residual	-	Permittee must provide status report to the Department documenting progress toward achieving final permit limit.	01/01/2016 (see note (b) below)
001	Chlorine, Total Residual	0.045 mg/l (final)	Final Permit Limit	Effective 11/1/2018

**The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT," the permittee is not required to repeat the submission(s) noted above. The above due dates are independent from the effective date of the permit stated in the "SPDES NOTICE/RENEWAL APPLICATION/PERMIT" letter.**

- b) For any action where the compliance date is greater than 9 months past the previous compliance due date, the permittee shall submit interim progress reports to the Department every nine (9) months until the due date for these compliance items are met.
- c) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:
1. A short description of the non-compliance;
  2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  3. A description of any factors which tend to explain or mitigate the non-compliance; and
  4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- d) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.



**SPECIAL CONDITIONS: Schedule of Submittals**

The permittee shall submit the following information to the Regional Water Engineer at the address listed on the Recording, Reporting and Monitoring page of this Permit, and to the Bureau of Water Permits, 625 Broadway, Albany NY 12233-3505:

Outfall	Required Action	Due Date
001	<u>Mercury Minimization Program:</u> Submit annual status report by April 1 <sup>st</sup> of each calendar year (for the previous year) with follow-up reports due annually thereafter.  <u>Whole Effluent Toxicity Testing:</u> WET testing shall be performed at the specified sample frequency during calendar years ending in <u>1</u> and <u>6</u> beginning in January and lasting for a period of one full year.	Annually, by April 1 <sup>st</sup>  Years ending in 1 and 6

**Notes:**

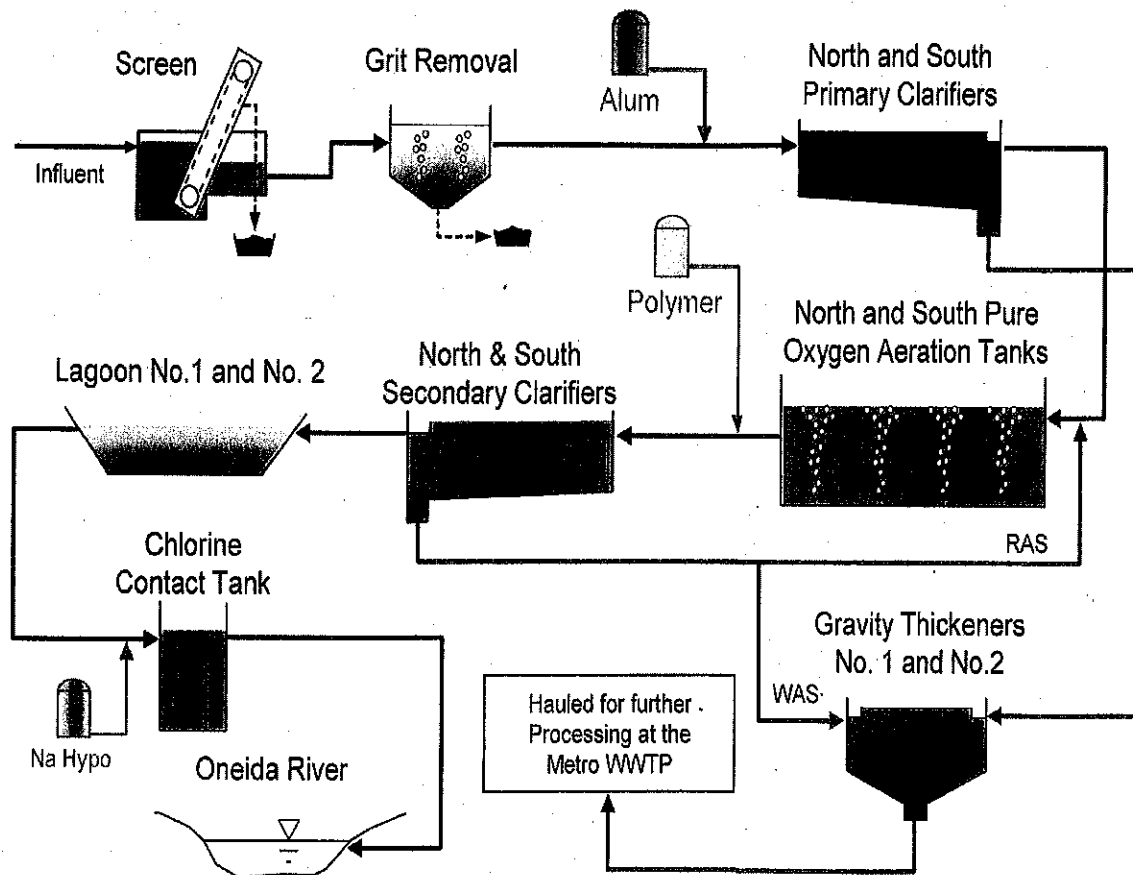
1. The permittee shall make every effort to comply with the above dates. Requests for extension, with justification, may be made to the Regional Water Engineer at the address listed above. Failure to submit either the information requested or a request for an extension by the dates listed above shall constitute noncompliance with this Permit.

## MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the location(s) specified below:

### Oak Orchard WWTP

#### Process Flow Diagram



**GENERAL REQUIREMENTS**

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:
- B. General Conditions
- |  |  |
|--|--|
| 1. Duty to comply                                | 6 NYCRR Part 750-2.1(e) & 2.4                |
| 2. Duty to reapply                               | 6 NYCRR Part 750-1.16(a)                     |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR Part 750-2.1(g)                      |
| 4. Duty to mitigate                              | 6 NYCRR Part 750-2.7(f)                      |
| 5. Permit actions                                | 6 NYCRR Part 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights                               | 6 NYCRR Part 750-2.2(b)                      |
| 7. Duty to provide information                   | 6 NYCRR Part 750-2.1(i)                      |
| 8. Inspection and entry                          | 6 NYCRR Part 750-2.1(a) & 2.3                |
- C. Operation and Maintenance
- |                                   |   |
|-----------------------------------|---|
| 1. Proper Operation & Maintenance | 6 NYCRR Part 750-2.8                      |
| 2. Bypass                         | 6 NYCRR Part 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset                          | 6 NYCRR Part 750-1.2(a)(94) & 2.8(c)      |
- D. Monitoring and Records
- |                           |  |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR Part 750-2.5(a)(2), 2.5(c)(1), 2.5(c)(2), 2.5(d) & 2.5(a)(6) |
| 2. Signatory requirements | 6 NYCRR Part 750-1.8 & 2.5(b)  |
- E. Reporting Requirements
- |  |                                       |
|--|---------------------------------------|
| 1. Reporting requirements  | 6 NYCRR Part 750-2.5, 2.6, 2.7 & 1.17 |
| 2. Anticipated noncompliance   | 6 NYCRR Part 750-2.7(a)               |
| 3. Transfers   | 6 NYCRR Part 750-1.17                 |
| 4. Monitoring reports  | 6 NYCRR Part 750-2.5(e)               |
| 5. Compliance schedules  | 6 NYCRR Part 750-1.14(d)              |
| 6. 24-hour reporting   | 6 NYCRR Part 750-2.7(c) & (d)         |
| 7. Other noncompliance   | 6 NYCRR Part 750-2.7(e)               |
| 8. Other information   | 6 NYCRR Part 750-2.1(f)               |
| 9. Additional conditions applicable to a POTW                        | 6 NYCRR Part 750-2.9                  |
| 10. Special reporting requirements for discharges that are not POTWs | 6 NYCRR Part 750-2.6                  |
- F. Planned Changes
1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
    - a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
    - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
    - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24<sup>th</sup> Floor, New York, NY 10007-1866.

**GENERAL REQUIREMENTS continued****G. Notification Requirement for POTWs**

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
  - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
  - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  - c. For the purposes of this paragraph, adequate notice shall include information on:
    - i. the quality and quantity of effluent introduced into the POTW, and
    - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:  
U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

**H. Sludge Management**

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

**I. SPDES Permit Program Fee**

The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.

**J. Water Treatment Chemicals (WTCs)**

New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.

1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized in writing by the Department.
2. The permittee shall **maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used.
3. The permittee shall **submit a completed *WTC Annual Report Form*** each year that they use and discharge WTCs. This form shall be attached to either the December DMR or the annual monitoring report required below.

The *WTC Notification Form* and *WTC Annual Report Form* are available from the Department's website at <http://www.dec.ny.gov/permits/93245.html>.

**RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS**

- A. The monitoring information required by this permit shall be summarized, signed and retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

☒ (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

☐ (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 each year and must summarize information for January to December of the previous year in a format acceptable to the Department.

☐ (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:

☐ Regional Water Engineer and/or ☐ County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:  
Department of Environmental Conservation  
Division of Water, Bureau of Water Compliance  
625 Broadway, Albany, New York 12233-3506  
Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:  
Department of Environmental Conservation  
Regional Water Engineer, Region 7  
615 Erie Blvd West  
Syracuse, New York 13204-2400  
(315) 426-7500

Send an **additional copy** of each DMR page to:

Onondaga Co. Dept. of Health  
PO Box 1325  
421 Montgomery Street  
Syracuse, NY 13202

- B. Monitoring and analysis shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- C. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- D. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- E. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- F. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

**Municipal SPDES Permit Fact Sheet**  
**Oak Orchard WWTP**  
**SPDES Number NY0030317**

**I. SUMMARY OF PROPOSED PERMIT CHANGES**

A SPDES permit renewal is proposed for this facility. Following is a summary of the proposed changes in the permit as compared to the currently effective permit, the details of these changes are specified below and in the draft permit:

1. Added stormwater only outfalls table listing on-site stormwater outfalls (Outfalls 002, 003 and 004) from roofs, catch basins and paved roadways (page 2 of permit) that were identified in the SPDES permit application.
2. As required by the Division of Water's TOGS 1.3.10 (*Mercury - SPDES Permitting, Multiple Discharge Variance, and Water Quality Monitoring*) a 50 ng/l permit limit for Mercury has been added to the permit.
3. The seasonal calculated water quality based effluent limit for Total Residual Chlorine has been reduced (from 0.35 mg/l to 0.045 mg/l).
4. Discharge Notification Act Requirements have been retained but updated. The updated pages can be found in the permit.
5. A minimum dissolved oxygen limit of 2.0 mg/l has been added to the permit.
6. Technology based effluent limits for CBOD<sub>5</sub> have been included in the Permit as per TOGS 1.3.3.
7. Monitoring requirement for influent BOD<sub>5</sub> was added to the permit (monitoring only, not a permit limit).
8. Permit limit for Total Iron was replaced with a monitor only action level requirement.
9. UOD limit (summer) changed from monthly average to daily max (Water Quality Based Effluent Limit).
10. The water quality based effluent limit for Ammonia (as NH<sub>3</sub>) of 400 lb/d has been reduced to 307 lb/d. A winter limit (of 2,026 lb/d) has also been added to the permit. Monitoring type has been changed to monthly average.
11. Monthly monitoring for BOD<sub>5</sub> has been added to the permit.

Please note that when the Department updates a permit this typically includes updated forms incorporating the latest general conditions.

**II. BACKGROUND INFORMATION**

As noted throughout this document, SPDES permits are based on both federal and state requirements - law, regulation, policy, and guidance. These can generally be found on the internet. Current locations include: Clean Water Act (CWA) [www.epa.gov/lawsregs/laws/index.html#env](http://www.epa.gov/lawsregs/laws/index.html#env); Environmental Conservation Law (ECL) [www.dec.ny.gov/regulations/40195.html](http://www.dec.ny.gov/regulations/40195.html); federal regulations [www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR](http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR); state environmental regulations [www.dec.ny.gov/regulations/regulations.html](http://www.dec.ny.gov/regulations/regulations.html); NYSDEC water policy [www.dec.ny.gov/regulations/2654.html](http://www.dec.ny.gov/regulations/2654.html).

**A. Administrative History**

The current SPDES permit for the facility became effective on 01/01/1998 and had an expiration date of 01/01/2003. It was administratively renewed in 2003 and 2008 and expires on 12/31/2012.

On June 28, 2012 the permittee submitted a permit renewal application form NY-2A and sampling data.

## **B. Outfall and Receiving Water Information**

The facility discharges, or proposes to discharge, wastewater and/or stormwater to waters of the state via the following outfalls:

### **Outfall 001**

The Oak Orchard WWTP has been in service since 1981 and has an average design flow capacity of ten (10) MGD with a peak flow capacity of twenty four (24) MGD. Discharge from Outfall 001 is to the Oneida River.

This facility provides advanced secondary treatment of wastewater using pure oxygen activated sludge process. Wastewater is collected throughout portions of the Towns of Cicero and Clay and the Village of North Syracuse. A system of gravity sewers and smaller pumping stations convey wastewater from a large portion of the service area to the Davis Road Pumping Station. Flow from this pump station is transported over six (6) miles, through two interconnected force mains (24" and 36") that combine to form a single 30" force main at Euclid in the Town of Clay, which then conveys the sewage to the Oak Orchard WWTP grit chamber. The wastewater influent is primarily from residential sources, with some commercial use discharges and four (4) permitted industries contributing to the daily flow. A significant industrial contributor is Clintons Ditch Co-op, Inc., located in the Town of Cicero.

Raw influent wastewater enters the Headworks Building where it is split into two (2) separate channels. The wastewater then flows into one of two (2) covered aerated grit chambers, collected grit is removed via a mechanical clam shell removal system. The flow then undergoes screenings removal, passing through one of two (2) automatic screen rakes. Collected screenings and grit are stored in dumpsters, removed by trucks and eventually hauled to landfill.

Wastewater flows through the screen rakes into a channel where the flow is split and directed to two (2) primary clarifier structures, which provide for removal of settled solids and floating material. The two (2) separate rectangular primary clarifiers, using a traveling cog bridge with flights and chain, provide for removal of solids and skimming of floating scum and grease. Primary effluent then flows via gravity to two (2) covered pure oxygen activated sludge tanks where biological breakdown of nutrients is accomplished. The activated sludge (Mixed Liquor) then flows via gravity into six (6) separate rectangular secondary clarifier tanks, where settling of solids occurs with the help of a cationic polymer. Flights and chain are used in these clarifiers for removal of settled solids and skimming of floating scum and grease. Secondary effluent passes through a 3 foot Parshall flume and then through two (2) aerated lagoons, prior to flowing into the chlorine contact tank, where seasonal disinfection is accomplished using sodium hypochlorite.

After disinfection, the final effluent is discharged into the Oneida River. Phosphorus is removed year round with the addition of aluminum sulfate into the primary clarifier influent.

Solids from the primary clarifiers and the secondary clarifiers settle out in the two (2) Gravity Thickener Tanks. Collected solids from these tanks are removed via tanker truck to the Metropolitan-Syracuse WWTP for further treatment.

### **Sanitary Sewer Overflows (SSOs)**

The permit application did not identify any SSOs. Therefore, the draft permit does not include any known and possible Sanitary Sewer Overflows (SSOs) within the collection system tributary to the collection

system. Bypass from these types of outfalls is prohibited except as noted in 6 NYCRR Part 750-2.8(b)(2) and 40 CFR 122.41.

The Oak Orchard WWTP Service Area has a total of twenty one (21) outlying pumping stations, which collect and transport wastewater to the treatment plant. Nine (9) of these pumping stations are owned by Onondaga County, six (6) are owned by the town of Cicero and six (6) are owned by the town of Clay. It should be noted that all of the pumping stations are maintained by OCDWEP personnel.

None of the pumping stations have an outfall which could be used as an emergency outfall or diversion. All wastewater is transported via closed sewer pipe to the treatment plant.

All pumping stations have remote monitoring and alarm systems to detect any equipment malfunctions or unusual conditions. These alarm systems are monitored on a twenty-four (24) hour basis by OCDWEP staff.

### **Facility Stormwater Collection and Conveyance System Description**

The Oak Orchard WWTP facility site is a relatively level parcel of land which is bounded by seasonally flooded upland forest, agricultural land and Mud Creek, which is tributary to the Oneida River. The facility is made up of operational buildings, wastewater tankage, paved roadways, and grassed lawn areas. Also, the facility has two (2) lagoons along the Western edge of the property which provide additional treatment to the secondary effluent, prior to disinfection. The facility has a total of six (6) catch basins; four (4) which drain to Outfall # 004, one (1) which drains to Outfall # 003 and one (1) which drains to Outfall #002. These catch

basins collect storm water from surface runoff and roof drains from some operational buildings. Other buildings and areas of the facility do not have a closed stormwater drainage system, runoff drains as sheet flows over pavement, sloped toward the surrounding grassed swales around the property.

The three (3) stormwater outlets convey runoff from areas of paved roadway, roof drains and grassed lawn areas. These outlets discharge into drainage swale's and wooded locations which have been landscaped to transport stormwater. These areas blend into the surrounding property, which drain naturally, via small tributaries, into Mud Creek and then the Oneida River. The Oneida River is a Class B waterway located approximately 1/4 mile North of the Oak Orchard WWTP.

#### **Stormwater Outfall 002**

The drainage area for Outlet #002 is located in the Northwest corner of the property. Stormwater runoff is collected from grassed lawn areas (65%), paved roadways (20%) and roof drains (15%). The drainage area is approximately 3,700 SF. Stormwater drains via a closed pipe to a drainage swale adjacent to the Chlorine Contact Tank.

#### **Stormwater Outfall 003**

The drainage area for Outlet #003 is located North of the Administration/Operations Building. Stormwater runoff is collected from paved roadways (50%) and grassed lawn areas (50%). The drainage area is approximately 800 SF. Stormwater drains via closed pipe to a drainage swale adjacent to a wooded area behind the Maintenance Garage.

#### **Stormwater Outfall 004**

The drainage area for Outlet #004 is located North of the main process/operational tankage. Stormwater runoff is collected from grassed lawn areas (50%), paved roadways (25%) and roof drains (25%). The



drainage area is approximately 22,000 SF. Stormwater drains via a closed pipe to a wooded area just outside the property fence line adjacent to Mud Creek.

It should be noted that a Chemical Transfer Station is located along the East side of the main process building, where there are no storm catch basins or drains. Bulk deliveries of aluminum sulfate take place in the permanently installed concrete containment system. Stormwater collected in this containment structure is stored separately in a concrete containment manhole. This manhole is pumped out as needed, and the contents disposed of as required by law.

The location of the main outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the *Outfall & Receiving Water Location Table* at the end of this fact sheet. The classifications of individual surface waters are specified in 6 NYCRR Parts 800 – 941. The best uses and other requirements applicable to the specific water classes are specified in 6 NYCRR Part 701.

The 7Q10 flow was obtained from NYSDEC Water Quality files. The 30Q10 flow was obtained from the same source. Mixing zone analyses are conducted assuming complete mixing. Other critical receiving water data for Temperature, pH, hardness and/or salinity were based on conservative estimates. This flow information is listed in the *Pollutant Summary Table* at the end of this fact sheet together with applicable ambient water quality criteria, ambient background data (if available), and outfall pollutant data.

**Impaired Waterbody Information** – The CWA requires states to identify impaired waters, where designated uses are not fully supported. For these impaired waters/pollutants, states must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) restricting waterbody uses. As of 2012 the Oneida River was not listed as impaired.

#### **C. Discharge Composition**

The *Pollutant Summary Table* at the end of this fact sheet presents the existing effluent quality of the facility. Concentration and mass data are presented, based on Discharge Monitoring Report (DMR), permit application, and possibly other data submitted by the permittee for the period July 2009 to August 2012. The statistical methods utilized to calculate 95<sup>th</sup> and 99<sup>th</sup> percentiles are in accordance with TOGS 1.2.1 and the USEPA, Office of Water, Technical Support Document For Water Quality-based Toxics Control, March 1991, Appendix E. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles (See TOGS 1.2.1 Appendix D). Non-detects were excluded from the statistical calculations.

#### **D. Compliance History**

A review of the facility's DMRs and other compliance information from July 2009 to August 2012 shows that the facility had the following violations:

<u>Parameter</u>	<u>Date</u>	<u>Permit Limit</u>	<u>Reported Value</u>
Coliform, Fecal	August 2010	400/100 ml (7-day)	1700/100 ml
Dissolved Oxygen	August 2010	5.0 mg/l (minimum)	4.6 mg/l
Dissolved Oxygen	October 2010	5.0 mg/l (minimum)	4.8 mg/l

### **III. PROPOSED PERMIT REQUIREMENTS**

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the Clean Water Act (CWA) provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to

these sections of the CWA, New York State Environmental Conservation Law, and the relevant federal/state regulations, policy, and guidance to determine which conditions to include in the draft permit.

For existing permittees, the previous permit typically forms the basis for the next permit. Permit revisions are implemented where justified due to changed conditions at the facility and/or in response to updated regulatory requirements.

#### **A. Effluent Limitations**

If applicable, the existing permit limits are evaluated to determine if these should be continued, revised, or deleted. Generally, existing limits are continued unless there is justification to do otherwise. Other pollutant monitoring data are also reviewed to determine the presence of additional contaminants that should be included in the permit.

The permit writer determines the **technology-based effluent limits (TBELs)** that must be incorporated into the permit. A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). The Department then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances to occur, **water quality-based effluent limits (WQBELs)** must be included in the permit. A WQBEL is designed to ensure that the water quality standards of receiving waters are being met. In general, the Clean Water Act requires that the effluent limits for a particular pollutant are the more stringent of either the TBEL or WQBEL.

#### **1. TBELs & Anti-Backsliding:**

Sections 301(b)(1)(B) and 304(d)(1) of the CWA require technology-based controls, known as secondary treatment, on POTW effluents. The applicable federal regulations are specified in 40 CFR Part 133.102. These and other requirements are summarized in TOGS 1.3.3.

Anti-backsliding requirements are specified in the CWA, sections 402(o) and 303(d)(4), and regulations at 40 CFR 122.44(l). These requirements are summarized in TOGS 1.2.1. Generally, the regulations prohibit the relaxation of effluent limits in reissued permits unless one of the specified exceptions applies. In practice, limits in reissued permits will generally be no less stringent than previous permit limits to ensure compliance with anti-backsliding requirements. Otherwise, the specific exceptions that allow backsliding will be cited on a case-by-case basis.

Following is the TBEL & Anti-backsliding assessment for each pollutant present in the discharge(s). A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

#### **Pollutant-Specific TBEL & Anti-Backsliding Analysis:**

In addition to the concentration limits noted below, 40 CFR 122.45(f) requires that SPDES permits contain mass-based limits for most pollutants. Mass-based limits in lbs/day are derived by multiplying the design flow in MGD by the concentration limit in mg/L by a conversion factor of 8.34. Limits are typically expressed using two significant figures.

#### **Outfall 001**

**Flow** – Consistent with TOGS 1.3.3, a monthly average flow limit of 10.0 MGD is specified, which is equal to the design capacity of the treatment plant.

**pH range** – 40 CFR 133.102 requires that the effluent pH be within the range of 6.0 to 9.0 standard units (SU).

**Temperature** – Monitoring is required for process control and informational purposes.

**Dissolved Oxygen** – Monitoring is required for process control and informational purposes.

**5 day Carbonaceous Biochemical Oxygen Demand (CBOD5)** – 40 CFR 133.102 requires that the 30 day (monthly) average be limited to 25 mg/L, the 7-day (weekly) average be limited to 40 mg/L, and the minimum monthly average percent removal be 85%.

**Total Suspended Solids (TSS)** – 40 CFR 133.102 requires that the 30 day (monthly) average be limited to 30 mg/L, the 7-day (weekly) average be limited to 45 mg/L, and the minimum monthly average percent removal be 85%.

**Settleable Solids** – In accordance with TOGS 1.3.3 a limit of 0.3 is specified.

**Phosphorus** – Based on TOGS 1.3.3, for a POTW which discharges to Lakes Erie or Ontario or their respective drainage basins and are not subject to more stringent requirements under TOGS 1.3.6 the current permit limit of 1.0 mg/l has been retained in the permit.

**Fecal Coliform** – Based on TOGS 1.3.3, for a discharge to a Class B water seasonal disinfection is required. See QBEL section.

**Total Residual Chlorine (TRC)** – Effluent disinfection is required as noted below in the QBEL section. Based on TOGS 1.3.3, a daily maximum limit of 2.0 mg/l is appropriate. This limit prevents excessive use of chlorine while maintaining an appropriate process control indicator for effective disinfection. See QBEL section for additional information on the revised TRC limit. See QBEL section below for additional information.

**Mercury** – See QBEL section below.

## **2. QBELs & Anti-Degradation:**

In addition to the TBELs previously discussed, the NYSDEC evaluated the discharge to determine compliance with Sections 101 and 301(b)(1)(C) of the CWA and 40 CFR 122.44(d)(1). These require that permits include limits for all pollutants or parameters which are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA).

The procedure for developing QBELs includes knowing the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if QBELs are necessary (reasonable potential), and calculating the QBELs. Factors also considered in this analysis include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources. If the expected concentration of the pollutant of concern in the receiving water may exceed the ambient water quality standard or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a QBEL or WLA for the pollutant is required.

**Antidegradation Policy:** New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, entitled "Water Quality Antidegradation

Policy,” signed by the Commissioner of NYSDEC, dated September 9, 1985; and, (2) TOGS 1.3.9, entitled “Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985).” A SPDES permit cannot be issued that would result in the water quality criteria being violated. The permit for the facility contains effluent limits which ensure that the existing beneficial uses of the receiving waters will be maintained.

Following is the WQBEL analysis for each pollutant present in the discharge(s). Anti-degradation analysis which justifies applying water quality standards of a higher classification is noted below, if applicable. Refer to section II.B. above for information on discharge location, receiving water information (class, dilution, chemistry), and the existence of any TMDLs. A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

#### **Pollutant-Specific WQBEL & Anti-Degradation Analysis:**

##### **Outfall 001**

**pH range** – The dilution ratio is at least 1:1 so a limit equal to the TBEL is appropriate.

**Temperature** – The discharge is to non-trout waters and, typical of STPs, existing effluent quality is below 90 F. Therefore, a limit is not necessary (see 6 NYCRR 704.2(b)(1)(i)).

**Ultimate Oxygen Demand (UOD)** – The seasonal (June 1 to October 31) daily maximum water based effluent limit for UOD of 4289 lbs/day has been retained in the permit. Sample type changed from monthly average to daily max.

**Dissolved Oxygen** – The dissolved oxygen limit has been established assuming a worst case dissolved oxygen level of 2.0 mg/l. Therefore, the permit has been revised and a minimum dissolved oxygen limit of 2.0 mg/l has been added which will ensure that the discharge meets New York State Water Quality Standards as all times. This change has resulted from new information that has become available during the calculation of the water quality based effluent limit which justify the change to this limit.

**Total Suspended Solids (TSS)** – The TBEL limit has been retained in the draft permit.

**Settleable Solids** – The narrative water quality standards provided in 6 NYCRR Part 703.2 state that the discharge of settleable solids shall not cause deposition or impair the receiving waters for their best usages. The TBEL is sufficient in this case.

**Total Kjeldahl Nitrogen/Ammonia** – As per TOGS 1.3.3 all POTWs with a design flow of 1.0 MGD or greater monitor for influent and effluent TKN and Ammonia. These requirements are being retained from the previous permit. Sample type has been changed to monthly average.

**Phosphorus** – The current permit limit of 1.0 mg/l will be retained. TOGS 1.3.3 requires, for POTWs which discharge to Lakes Erie or Ontario or their respective drainage basins and are not subject to more stringent requirements under TOGS 1.3.6, New York State’s implementation of the 1987 Great Lakes Water Quality Agreement (GLWQA) by the International Joint Commission (IJC) requires that the effluent concentration of total phosphorus be limited to 1.0 mg/l on an average 30 day basis.

**Fecal Coliform** – In accordance with TOGS 1.3.3, seasonal effluent disinfection is required because the discharge is to a class B water body. Geometric mean limits of 200/100 ml monthly average and 400/100 ml weekly average are specified.

**Total Residual Chlorine (TRC)** – A daily maximum TRC WQBEL of 45 ug/L (or 0.045 mg/l) was determined by multiplying the water quality standard of 5 ug/L by the chronic dilution ratio of 8.95. See also TOGS 1.3.1.E. The current limit of 0.35 mg/l will remain in effect until 11/1/2018.

**Mercury** – The current permit includes a limit of 50 ng/l for Mercury. Mercury has been detected in the effluent at a maximum value of 0.68 ng/L. New York State's mercury multiple discharge variance (MDV) in TOGS 1.3.10 is being applied. Consequently, the permit includes a 50 ng/L effluent limit; a mercury minimization program requirement; and routine monitoring using EPA Method 1631. Refer to TOGS 1.3.10 for further detail.

**Whole Effluent Toxicity (WET) Testing** – WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. Treatment plants which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs < 1 MGD which are managing industrial pretreatment programs.

A Reasonable Potential analysis was performed, including an evaluation of the discharge against the seven criteria noted above. Criteria applicable to the discharge include number(s) 4 and 7. Based upon this evaluation, WET testing action levels of 1.5 TUa and 9.0 TUC have been added to the draft permit for each species. The chronic limit/action level is equal to the chronic dilution ratio. The acute limit/action level is equal to 50% of the chronic dilution ratio multiplied by 0.3. Refer to the SPDES permit for details.

## **B. Monitoring & Reporting Requirements**

Section 308 of the Clean Water Act and federal regulations 40 CFR 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and for reporting results on DMRs. The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

### **C. Other Conditions Specific To This Permit**

**Schedule of Submittals:** The schedule of submittals page has been included in the permit to summarize the due dates for submission of the Mercury Minimization Program annual status report and the Whole Effluent Toxicity Testing program.

**Compliance Schedule(s):** The schedule of compliance page has been included in the permit to summarize the interim and final permit limits for total residual chlorine.

**Industrial Pretreatment Program:** The permittee is required to implement a Pretreatment Program in accordance with 40 CFR 403. The program specifies development of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting. This requirement is based on 40 CFR 403 and TOGS 1.3.3 and is being continued from the previous permit. The current Industrial Pretreatment Program was approved on June 11, 1984.

**Water Treatment Chemicals (WTCs):** The use and discharge of WTCs requires the prior review and authorization by the NYSDEC. In most cases, a permit modification is not necessary. WTC usage must be logged and detailed in an annual report sent to the DEC. The permit lists any authorized WTCs for the facility.

**Pollutant Minimization Program (PMP):** As discussed above, a PMP for Mercury is being implemented at the facility because the WQBEL of 0.7 ng/L is lower than the compliance limit of 50 ng/L. The goal of the PMP is to meet the calculated WQBEL. Since the design flow of 10.0 mgd exceeds 5.0 mgd TOGS 1.3.10 requires a mercury limit of 50 ng/l along with a High Priority Mercury Minimization Program (page 11 of draft permit). This is a new permit requirement.

**Discharge Notification Act:** In accordance with Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. This requirement is being retained, but updated, compared to the previous permit.

**Stormwater Pollution Prevention Plan:** The permittee is required to develop and maintain a stormwater pollution prevention plan to minimize contamination of stormwater run-off from the on-site stormwater outfalls at the facility. This requirement is being continued from the previous permit.

### **D. General Conditions Applicable To All Permits**

The permit contains standard regulatory language that is required to be in all SPDES permits. These permit provisions, based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750, include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities. These "general conditions" of permits are typically specified, summarized, or referenced on the first and last pages of the permit.

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## OUTFALL & RECEIVING WATER LOCATION TABLE

Permit Number	Permittee Name	Facility Name	Location (C, T, V)	County	Industrial Code	Major/Sub Basin
NY 003 0317	Onondaga County	Oak Orchard Wastewater Treatment Plant	Lysander (T)	Onondaga	4952	07-03

Outfall Information					Receiving Water Information								
Outfall #	Latitude	Longitude	Flow Rate (MGD)		Name	Class	Water Index Number	For use by WQ Engineer - Critical Data					
	° , ' , "	° , ' , "	Average	Design				7Q10 (cfs)	30Q10 (cfs)	Dilution	pH	Temp (°C)	Hardness (mg/l)
001	43,12,18.6	76,12,49.7	5.7	10.0	Oneida River	B	ONT 66-11	123(s) 199(w)	143(s) 680(w)	See below	8.3	25	150
				(15.47 cfs)				<u>Acute Dilution</u> Summer/winter		5.0 / 7.4			
								<u>Chronic Dilution</u> Summer/winter		8.95 / 13.9			
								<u>HEW-Dilution</u> Summer/winter		10.24 / 45			

HEW- Human, Aesthetic, Wildlife Protection  
 (s) = summer  
 (w) = winter

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## POLLUTANT SUMMARY TABLE(S)

Outfall	001
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Type of Treatment:	This facility provides advanced secondary treatment of wastewater using pure oxygen activated sludge process. Raw influent wastewater enters the Headworks Building where it is split into two (2) separate channels. The wastewater then flows into one of two (2) covered aerated grit chambers, collected grit is removed via a mechanical clam shell removal system. The flow then undergoes screenings removal, passing through one of two (2) automatic screen rakes. Collected screenings and grit are stored in dumpsters, removed by trucks and eventually hauled to landfill. Wastewater flows through the screen rakes into a channel where the flow is split and directed to two (2) primary clarifier structures, which provide for removal of settled solids and floating material. The two (2) separate rectangular primary clarifiers, using a traveling cog bridge with flights and chain, provide for removal of solids and skimming of floating scum and grease. Primary effluent then flows via gravity to two (2) covered pure oxygen activated sludge tanks where biological breakdown of nutrients is accomplished. The activated sludge (Mixed Liquor) then flows via gravity into six (6) separate rectangular secondary clarifier tanks, where settling of solids occurs with the help of a cationic polymer. Flights and chain are used in these clarifiers for removal of settled solids and skimming of floating scum and grease. Secondary effluent passes through a 3 foot Parshall flume and then through two (2) aerated lagoons, prior to flowing into the chlorine contact tank, where seasonal disinfection is accomplished using sodium hypochlorite.
and	
Sludge Handling:	Solids from the primary clarifiers and the secondary clarifiers settle out in the two (2) Gravity Thickener Tanks. Collected solids from these tanks are removed via tanker truck to the Metropolitan-Syracuse WWTP for further treatment.

Effluent Parameter (Units)  (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit				Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	concentration		mass		Conc.	Mass	Type	Basis	AWQC	Effluent		Type	
	Avg	Max	Avg	Max					conc.	conc.	mass		
Whole Effluent Toxicity (WET) TESTING									Recommended?		YES		WQ
Flow Rate, units = MGD	Average	5.7	Maximum	8.2	10		MA	R - BPI, TOGS 1.3.3					T
pH (SU)	Minimum	6.1	Maximum	7.5	6.0 – 9.0		Range	R - 40 CFR133. 102(c)	6.5 – 8.5	TBEL – OK (High Dilution)			T
CBOD <sub>5</sub> (30 day), mg/l, lbs/day (limits apply Nov 1 <sup>st</sup> to June 15 <sup>th</sup> )	2.63	5	142	300	25	2085	30 day mean	R - 40 CFR 133.102	DO= 4.0	Apply TBEL			T
CBOD <sub>5</sub> (7 day), mg/l, lbs/day (limits apply Nov 1 <sup>st</sup> to June 15 <sup>th</sup> )	4.9	12	281	1000	40	3336	7 day mean	R - 40 CFR 133.102					T
CBOD <sub>5</sub> (30 day), mg/l, lbs/day (limit applies June 16 <sup>th</sup> to Oct 31 <sup>st</sup> )	2.63	5	142	300	25	2085	30 day mean	40 CFR 133.102	DO= 4.0	Apply UOD limit			T
CBOD <sub>5</sub> (7 day), mg/l, lbs/day (limit applies June 16 <sup>th</sup> to Oct 31 <sup>st</sup> )	4.9	12	281	1000	40	3336	7 day mean	40 CFR 133.102					T
UOD, ( daily max ), mg/l, lbs/day (limit applies June 16 <sup>th</sup> to Oct 31 <sup>st</sup> )	-	-	776	2000	-	4289	30 day mean	R	DO= 4.0		4289.0	DM	WQ



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TSS (30 day), mg/l, lbs/day	3.6	5	168	300	30	2500	30 day mean	R - 40 CFR 133.102	Narrative Std.		++		T
TSS (7 day), mg/l, lbs/day	4.6	9	229	700	45	3750	7 day mean	R - 40 CFR 133.102					T
Solids, Settleable, ml/l	0.1	0.1	-	-	0.3	-	DM	R - TOGS 1.3.3	Narrative Std.		++		T
Effluent Disinfection: [ ] All Year [ X ] Seasonal from: MAY 15 <sup>th</sup> to OCT 15 <sup>th</sup>													
Fecal Coliform(30 day/7 day), #/100 ml	3.4/98.3	15/1700	-	-	200/400	-	GM	R - 6NYCRR 703.4	200#	200#	-----	-----	T
Chlorine, Total Residual, mg/l	0.26	0.32	11.9	17.5	0.35		DM	R	0.005	0.045	-----	DM	WQ
Phosphorus, Total (mo. avg), mg/l, lbs/day	0.14	0.53	-	-	1.0	-	MA	R - TOGS 1.3.3	1.0-GLWQA	1.0	-----	MA	WQ
Dissolved Oxygen (minimum), mg/l (limit applies June 16 <sup>th</sup> to Oct 31 <sup>st</sup> )	6.54 (avg)	4.6 (min)	-	-	5.0	-	D Min	R	DO= 4.0	2.0	-----	Min.	WQ
Ammonia (as NH <sub>3</sub> ) (monthly average) (Summer: applies June 16 <sup>th</sup> to Oct 31 <sup>st</sup> )	1.7	7.3	76	329		400	MA	R	0.41*	3.69	307	MA	WQ
Ammonia (as NH <sub>3</sub> ) (monthly average) (Winter: applies November 1 <sup>st</sup> to June 15 <sup>th</sup> )	-	-	-	-	-	-	-	-	0.59*	24.3	2026.0	MA	WQ
TKN, mg/l	5.1	12.9	-	-	Monitor	-	DM	R	-	-	-	-	T

Notes: ++ - Apply TBEL

\*=background concentration = 0.05mg/l

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Outfall 001 (continued)

Effluent Parameter (Units)  (concentration units - mg/l, ug/l or ng/l; mass units - lbs/d or g/d)	Existing Effluent Quality				Technology Based Effluent Limit					Water Quality Based Effluent Limit				Permit Basis (T or WQ)
	Concentration		mass		Conc.	Mass	Type	PQL	Basis	AWQC	Effluent		Type	
	Avg	Max	Avg/Max	95%/99%				Conc.		conc.	conc.	mass		
Iron, Total Recoverable, lbs/day	-	-	5.8/11.2	8.8/10.6	Monitor	Monitor	DM		BPJ (99%)	No Std./Guidance Value				T
Chloroform, (lbs/day)	-	4.5*	0.2/0.7	0.45/0.57	Monitor	1.3	AL		R - BPJ	No Std./Guidance Value				T
Cadmium, Total Recoverable (lbs/day)	-	<0.0008	0.09/0.4	0.26/0.34	Monitor	0.4	AL		R - BPJ (99%)	0.0027-HFC	0.028	2.3	MA	T
Chromium, Total Recoverable (lbs/day)	-	< 0.008*	0.4/0.65	0.7/0.85	Monitor	1.9	AL		R - BPJ	0.033-C	0.925	77	DM	T
Copper, Total Recoverable (lbs/day)	-	<0.01	0.6/0.9	0.8/0.9	Monitor	1.8	AL		R - BPJ	0.0197-A	0.103	8.6	DM	T
Nickel, Total Recoverable (lbs/day)	-	<0.015	0.9/1.2	1.2/1.4	Monitor	2.9	AL		R - BPJ	0.0733-C	0.658	55	DM	T
Zinc, Total Recoverable (lbs/day)	-	0.0473	1.9/2.4	2.6/2.9	Monitor	5.4	AL		R - BPJ	0.1652-A	0.838	70	DM	T
Arsenic, Total Recoverable (lbs/day)	-		0.16/0.45	0.37/0.47	Monitor	Monitor			BPJ (STH in last permit – all non-detect)	0.150-C	1.34	112	DM	T
Phenols, Total (lbs/day)	-	0.0121*	0.9/2.8	2.1/2.9	Monitor	Monitor			BPJ (STH in last permit – all non-detect)	0.005-E	0.051	4.3	MA	T
Mercury, Total (ng/l)	-	0.68**	-	-	50	-	DM		TOGS 1.3.10	0.0007 ug/l- HFC	50ng/l –TOGS 1.3.10		DM	WQ/T

Notes: \* Sample result from Priority Pollutant sampling provided with the 2012 NY-2A SPDES application; Units for WQ Std. & Effluent Limit- mg/l  
 \*\* Mercury sample collected on 4/11/2012 (analyzed using EPA Method 1631)

Existing Effluent Quality (Mass based data) obtained from DMRs (2009-2012)